



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

September 25, 2024

Jeffrey Poulton  
Chief Financial Officer  
Alnylam Pharmaceuticals, Inc.  
675 West Kendall Street  
Henri A. Termeer Square  
Cambridge, MA 20142

**Re: Alnylam Pharmaceuticals, Inc.**  
**Form 10-K for the Fiscal Year Ended December 31, 2023**  
**Filed February 15, 2024**  
**File No. 001-36407**

Dear Jeffrey Poulton:

We have completed our review of your filing. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Sincerely,

Division of Corporation Finance  
Office of Life Sciences